

Achievement Standard

Subject Reference Digital Technologies 1.51

Title Implement basic procedures for servicing a personal computer system

Level 1 **Credits** 4 **Assessment** Internal

Subfield Technology

Domain Digital Technologies

Status Registered **Status date** 20 January 2011

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This achievement standard involves implementing basic procedures for servicing a personal computer system.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> Implement basic procedures for servicing a personal computer system. 	<ul style="list-style-type: none"> Skilfully implement basic procedures for servicing a personal computer system. 	<ul style="list-style-type: none"> Efficiently implement basic procedures for servicing a personal computer system.

Explanatory Notes

- 1 This achievement standard is derived from the Level 6 achievement objectives from the Technology learning area in *The New Zealand Curriculum*, Learning Media, Ministry of Education, 2007, and is related to the material in the *Teaching and Learning Guide for Technology*, Ministry of Education, 2010 at <http://seniorsecondary.tki.org.nz>.

Appropriate reference information is available in *Safety and Technology Education: A Guidance Manual for New Zealand Schools*, Learning Media, Ministry of Education, 1998; and The Health and Safety in Employment Act 1992.

Further information can be found at <http://www.techlink.org.nz>.

- 2 *Implement basic procedures for servicing a personal computer system* involves:
- following standard procedures for installing and configuring hardware, software and peripherals of a personal computer system
 - undertaking and documenting a range of appropriate testing procedures to demonstrate the system meets the requirements of a specified personal computer system

- diagnosing and troubleshooting to identify and resolve given installation and configuration faults in a system.

Skilfully implement basic procedures for servicing a personal computer system involves:

- showing accuracy and independence in following standard procedures for installing and configuring hardware, software and peripherals of a personal computer system
- showing accuracy and independence in diagnosing and troubleshooting to identify and resolve given installation and configuration faults in a system.

Efficiently implement basic procedures for servicing a personal computer system involves:

- diagnosing and troubleshooting to identify and resolve given installation and configuration faults in a system, in a manner that is economical in time, effort and resources.

3 A *personal computer system* consists of:

- Personal computer hardware, which includes but is not limited to:
 - case
 - power supply
 - motherboard
 - on-board components (eg video, USB ports and networking)
 - cables
 - memory
 - extension cards (eg PCI Express)
 - storage devices (magnetic, optical and solid state drives and media)
- Associated peripherals, which include but are not limited to:
 - keyboard and mouse
 - monitor
 - printer
 - external drives
 - USB hubs
 - Webcam
- Software, which includes but is not limited to:
 - operating system
 - device drivers
 - system software
 - application software.

4 Standard procedures for installing and configuring hardware and peripherals include systematic use of procedures specified in manufacturer OEM manuals, antistatic procedures, electrical safety procedures, and relevant OSH regulations.

5 Standard procedures for installing and configuring software include standard best practice and procedures specified in manuals, installation guides, installation programs, and system documentation including Help facilities.

- 6 Installing hardware and peripherals involves assembling and connecting the physical components, identifying any missing or inappropriate hardware components, and acquiring and installing any requisite software such as drivers.
 - 7 Installing software means acquiring and running installer programs; identifying, acquiring and installing any required system software; and performing any manufacturer updates to ensure that the version is current.
 - 8 The requirements of the specified personal computer system will state the configuration of the software and hardware to satisfy particular customer requirements. All requirements will be within manufacturer and warranty requirements.
 - 9 Appropriate testing procedures will include but are not limited to – procedures to ensure that compatibility issues are resolved, that all connected hardware devices are detected correctly and operate correctly in response to a range of requests, that software programs run as specified in the brief.
 - 10 Given installation and configuration faults may include but are not limited to – incorrect or missing cables, incorrectly installed hardware, missing or incompatible drivers and other system software, missed steps in software installation, incorrect versions of software, incorrect software configuration parameters.
 - 11 Conditions of Assessment related to this achievement standard can be found at <http://www.tki.org.nz/e/community/ncea/conditions-assessment.php>.
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Quality Assurance

- 1 Providers and Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against achievement standards.
- 2 Accredited providers and Industry Training Organisations assessing against achievement standards must engage with the moderation system that applies to those achievement standards.

Accreditation and Moderation Action Plan (AMAP) reference

0233